



{In Archive} Re: Fw: retrofit question / MN Pilot
Christopher Moore to: Holly Galavotti

04/19/2010 09:48 AM

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Thanks Holly.

Christopher Moore
United States Environmental Protection Agency
Office of Wastewater Management
202.564.7299
Moore.Christopher@epa.gov

Holly Galavotti ----- Forwarded by Holly Galavotti/DC/USEPA/U...

04/16/2010 04:19:43 PM

From: Holly Galavotti/DC/USEPA/US
To: Christopher Moore/DC/USEPA/US@EPA
Date: 04/16/2010 04:19 PM
Subject: Fw: retrofit question / MN Pilot

----- Forwarded by Holly Galavotti/DC/USEPA/US on 04/16/2010 04:19 PM -----

From: Bob Newport/R5/USEPA/US
To: Holly Galavotti/DC/USEPA/US@EPA
Date: 03/25/2010 06:12 PM
Subject: Re: retrofit question / MN Pilot

Hi Holly

I have not seen State requirements that require retrofits, outside of a CSO or TMDL or possibly an antidegradation context, with one exception. NR 151 in Wisconsin has post-construction performance standards for sites and performance standards for communities. The performance standards for communities use TSS as the pollutant of interest. MS4 communities are required to reduce total suspended solids by 40 percent by 2013. This will require enhanced BMPs and in some cases might require structural treatment practices. So this State rule will to some degree require retrofits. (But it is not focused on volumes.) In most other cases I am aware of folks seem comfortable with post-construction requirements and sometimes water quality based additional performance standards, but most States that I have seen have not taken the plunge and required retrofits outside these contexts.



{In Archive} Fw: [stormwater] MS4 Level Performance Standards

Christopher Moore to: Jennifer Molloy, Robert Goo, Jesse Pritts,
Todd Doley, Charlotte Bertrand, Kevin
Magerr, Martha Turvey, Melissa Kramer, 08/25/2010 05:26 PM

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Croton Phase II Implementation Plan.pdf

Christopher Moore

United States Environmental Protection Agency

Office of Wastewater Management

202.564.7299

Moore.Christopher@epa.gov

----- Forwarded by Christopher Moore/DC/USEPA/US on 08/25/2010 05:26 PM -----

From: "Robert Capowski" <rmcapows@gw.dec.state.ny.us>
To: Christopher Moore/DC/USEPA/US@EPA
Date: 08/05/2010 09:44 AM
Subject: Re: [stormwater] MS4 Level Performance Standards

Good morning Christopher,

NY State's MS4 permit requires the MS4s in the phosphorus-impacted NYC Croton (East of Hudson) watershed to, among other heightened requirements, submit "an approvable retrofit plan" that will reduce phosphorus loading to the watershed by an MS4-specific numeric target as articulated in the "Croton Watershed Phase II Phosphorus TMDL Implementation Plan".

The MS4s can pick projects wherever they want in the watershed, as long as the cumulative reduction will be met.

Sincerely,

Robert M. Capowski, P.E.
NYSDEC
Division of Water
625 Broadway
Albany, NY 12233

email: rmcapows@gw.dec.state.ny.us

phone: 518-402-8112

fax: 518-402-9029

>>> <Moore.Christopher@epamail.epa.gov> 8/4/2010 5:03 PM >>>

Stormwater Listserve:



{In Archive} RE: Language on Flow Restoration Plans from Draft VT MS4 Permit

Christopher Moore to: Kosco, John

04/04/2011 04:50 PM

Jennifer Molloy, Robert Goo, Jesse Pritts, Todd Doley, Charlotte
Cc: Bertrand, Kevin Magerr, Martha Turvey, Melissa Kramer, Ahmar
Siddiqui, Sylvia Horwitz, Christopher Kloss

Archive: This message is being viewed in an archive.

Nice. Thanks John.

Christopher Moore
United States Environmental Protection Agency
Office of Wastewater Management
202.564.7299
Moore.Christopher@epa.gov

"Kosco, John"

Chris, Here are two other permits that have simil...

04/04/2011 04:42:18 PM

From: "Kosco, John" <john.kosco@tetrattech.com>
To: Christopher Moore/DC/USEPA/US@EPA
Date: 04/04/2011 04:42 PM
Subject: RE: Language on Flow Restoration Plans from Draft VT MS4 Permit

Chris,

Here are two other permits that have similar retrofit language. I clipped out only the retrofit parts, but I can send you the whole permit if you want to see it.

The Portland language is pretty broad and only requires 1 project for the permit term. The Riverside language links to annual work plans that the MS4 must prepare, so the implementation requirements are not specific.

John

-----Original Message-----

From: Moore.Christopher@epamail.epa.gov [mailto:Moore.Christopher@epamail.epa.gov]
Sent: Monday, April 04, 2011 3:32 PM
To: Molloy.Jennifer@epamail.epa.gov; Goo.Robert@epamail.epa.gov; Pritts.Jesse@epamail.epa.gov; Doley.Todd@epamail.epa.gov; Bertrand.Charlotte@epamail.epa.gov; Magerr.Kevin@epamail.epa.gov; Turvey.Martha@epamail.epa.gov; Kramer.Melissa@epamail.epa.gov; Siddiqui.Ahmar@epamail.epa.gov; Horwitz.Sylvia@epamail.epa.gov; Kloss.Christopher@epamail.epa.gov
Cc: Kosco, John
Subject: Language on Flow Restoration Plans from Draft VT MS4 Permit

Some strong similarities to our RED Plans.

- a) The permittee shall comply with the following requirements:

(1) The permittee shall develop and submit a comprehensive FRP for the portion of each stormwater-impaired watershed within the permittee's boundaries. Permittees that discharge into the same stormwater-impaired watershed may elect to cooperate to develop a single FRP for the watershed. The FRP shall be submitted to the Secretary no later than three years after the effective date of this permit or the permittee's designation as a regulated small MS4, whichever is later. The FRP shall contain the following elements:

(a) Identification of Required Controls. An identification of the suite of necessary stormwater BMPs that will be used to achieve the flow restoration targets. If a stormwater-impaired watershed includes lands outside the boundaries of a small MS4 permittee, the FRP shall address the permittee's commensurate share of necessary BMP implementation based on percent impervious land cover.

design

(b) Design and Construction Schedule. A and construction schedule for the stormwater BMPs that have been identified as necessary to achieve the flow restoration targets. The schedule shall include a discussion of any necessary permits or other regulatory approvals necessary for implementation of the required BMPs. The schedule shall provide for implementation of the required BMPs as soon as possible, but no later than 10 years from the effective date of this permit or the permittee's designation as a regulated small MS4, whichever is later. The permittee shall include a discussion of why the proposed completion dates are "as soon as possible."

(c) Financial Plan. A financing plan that estimates the costs for implementing the FRP and describes a strategy for financing the FRP. The financing plan shall include the steps each permittee will take to implement the financing plan.

(d) Regulatory Analysis. A regulatory analysis that identifies and describes what, if any, additional regulatory authorities, including but not limited to the authority to require low impact development BMPs, the permittee will need in order for the permittee to implement the FRP.

(e) Identification of Regulatory Assistance. An identification of regulatory assistance that the permittee will need from the Secretary in order to effectively implement the FRP. This should include an assessment of aspects of the FRP where the regulatory analysis indicates that

the permittee's authority may not be sufficient to effectively implement the FRP. For example, use of residual designation authority pursuant to 40 C.F.R. §122.26.

(f) Third-Party Implementation. An identification of the name of any party, other than the permittee, that is responsible for implementing any portion of the FRP.

(2) Upon approval by the Secretary, the Flow Restoration Plan shall be a part of the permittee's SWMP.

necessary (3) The permittee shall implement measures to achieve the FRP within 10 years after the effective date of this permit or the permittee's designation as a regulated small MS4, whichever is later, to achieve the flow restoration targets. The Secretary may adjust a permittee's flow restoration targets during the term of this permit if justified by monitoring data or other relevant information.

(4) The permittee shall estimate and discuss in its annual report any progress towards meeting the flow restoration targets from its small MS4 in the previous year. The permittee shall base the estimate on quantifiable measures attributable to implementation of its FRP and its overall SWMP. Examples of quantifiable measures include estimates of decreased impervious cover and stormwater retrofit practices.

(5) A permittee shall submit verification of BMP project completion with the annual report of activities required under this general permit. The permittee shall submit with the annual report a written statement signed by a designer that the identified BMP(s) has(have) been built or implemented and is(are) currently operating in compliance with the plans.

issuance (6) Beginning in the second year following of this permit, or designation as a regulated small MS4, the permittee shall develop a program to identify opportunities for and provide technical assistance to landowners in the implementation by landowners of low impact BMPs such as maximizing disconnection, maximizing infiltration of stormwater runoff, preventing and eliminating soil erosion, and preventing and eliminating the delivery of pollutants to stormwater conveyances.

(7) As a result of a rigorous analysis of the requirements and the need for stormwater monitoring data summarized in the National Academy of Sciences report: Urban Stormwater Management in the United States (2009) and the Vermont Water Resources Board docket and proceedings described in "A Scientifically Based Assessment and Adaptive Management Approach to

Stormwater Management" (2004) the Agency has instituted a network of stream flow gauging and rainfall gauging stations in the stormwater impaired watersheds. The Agency has funded the operation and maintenance of these stations for the years 2005-2009. As part of this long term monitoring effort:

(a) The permittee shall continue to fund the operation and maintenance of the currently existing flow gaging and rainfall gaging stations in its respective stormwater impaired watersheds. The Agency will work with the permittee on the appropriate data collection methods, maintenance and oversight of the gages and, if a lower cost gage is substituted for a current USGS gage, insure that the accuracy and usefulness of the data set is not disrupted. In lieu of using the currently existing flow gaging and rainfall gaging stations, the permittee may develop its own flow and precipitation monitoring program, as approved by the Secretary. A nontraditional MS4, at a minimum, may cost share in the O&M cost of the gage(s) for each watershed into which it discharges.

b) As set forth in Subpart I.C.1.d a permittee must be consistent with recommendations applicable to its small MS4 in the implementation section of the Lake Champlain TMDL and any future TMDLs for impaired waters affected by the small MS4 established or approved by EPA pursuant to section 303 (d) of the federal Clean Water Act. The Lake Champlain Phosphorus TMDL recommendations for municipalities include: adoption of erosion controls (page 65), improved construction and maintenance practices for gravel backroads (page 69), promotion of riparian buffers and setbacks (page 76) and impervious surface minimization (page 76). Such consistency is also required for any future applicable Water Quality Remediation Plans established pursuant to 10 V.S.A. §1264 and for other applicable TMDLs for impaired waters adversely affected by a small MS4.

c) The assessment of whether a SWMP is consistent with the assumptions and requirements of a stormwater TMDL will be based on the implementation and maintenance of best management practices identified in the FRP and on flow monitoring not on measurements of pollutant loading.

1. Discharges to Impaired Waters without an Approved TMDL

If a small MS4 discharges to an impaired water that is without an approved TMDL, the permittee shall comply with Part IV of this permit and address in its SWMP and annual reports how any discharges that have the potential to cause or contribute to the impairment will be controlled. A small MS4 may achieve an increased level of control through additional BMPs or enhancement of existing BMPs.

Christopher Moore
United States Environmental Protection Agency
Office of Wastewater Management
202.564.7299

Moore.Christopher@epa.gov

[attachment "RB9-Riverside-Retrofits-FINAL_R9-2010-0016.pdf" deleted by Christopher Moore/DC/USEPA/US] [attachment "PortlandMS4Permit-retrofits.pdf" deleted by Christopher Moore/DC/USEPA/US]



{In Archive} Fw: Language on Flow Restoration Plans from Draft VT MS4 Permit

Christopher Moore to: Kevin Weiss

04/26/2011 08:56 AM

Archive: This message is being viewed in an archive.

Please find the Riverside Permit attached.

Christopher Moore
United States Environmental Protection Agency
Office of Wastewater Management
202.564.7299

Moore.Christopher@epa.gov

----- Forwarded by Christopher Moore/DC/USEPA/US on 04/26/2011 08:55 AM -----

From: "Kosco, John" <john.kosco@tetrattech.com>
To: Christopher Moore/DC/USEPA/US@EPA
Date: 04/04/2011 04:42 PM
Subject: RE: Language on Flow Restoration Plans from Draft VT MS4 Permit

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Sent: Monday, April 04, 2011 3:32 PM
To: Molloy.Jennifer@epamail.epa.gov; Goo.Robert@epamail.epa.gov; Pritts.Jesse@epamail.epa.gov; Doley.Todd@epamail.epa.gov; Bertrand.Charlotte@epamail.epa.gov; Magerr.Kevin@epamail.epa.gov; Turvey.Martha@epamail.epa.gov; Kramer.Melissa@epamail.epa.gov; Siddiqui.Ahmar@epamail.epa.gov; Horwitz.Sylvia@epamail.epa.gov; Kloss.Christopher@epamail.epa.gov
Cc: Kosco, John
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1. Discharges to Impaired Waters without an Approved TMDL

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RB9-Riverside-Retrofits-FINAL_R9-2010-0016.pdf PortlandMS4Permit-retrofits.pdf

e. Inspection and maintenance tracking mechanism.

- 5. Hydromodification Assessment:** The co-permittee must conduct an initial hydromodification assessment and submit a report by November 1, 2014 that examines the hydromodification impacts related to the co-permittee's MS4 discharges, including erosion, sedimentation, and alteration to stormwater flow, volume and duration that may cause or contribute to water quality degradation. The report shall describe existing efforts and proposed actions the co-permittee has identified to address the following objectives:
- a. Collect and maintain information that will inform future stormwater management decisions related to hydromodification based on local conditions and needs;
 - b. Identify or develop strategies to address hydromodification information or data gaps related to waterbodies within the co-permittee's jurisdiction;
 - c. Identify strategies and priorities for preventing or reducing hydromodification impacts related to the co-permittee's MS4 discharges; and,
 - d. Identify or develop effective tools to reduce hydromodification.
- 6. Stormwater Retrofit Strategy Development:** The co-permittee must develop a stormwater quality retrofit strategy identified in a plan that applies to developed areas identified by the co-permittee as impacting water quality and that are underserved or lacking stormwater quality controls.
- a. The stormwater retrofit strategy must be based on a co-permittee-defined set of stormwater quality retrofit objectives and a comprehensive evaluation of a range of stormwater quality retrofit control measures and their appropriate use. The co-permittee-defined objectives must incorporate progress towards applicable TMDL wasteload allocations. Development of the stormwater retrofit strategy must allow for public comment and consider public input.
 - b. The co-permittee must develop and submit a stormwater retrofit plan to the Department by November 1, 2014 that the co-permittee will use to guide the implementation of its stormwater retrofit strategy. The stormwater retrofit plan must describe or reference the following:
 - i. Stormwater retrofit strategy statement and summary, including objectives and rationale;
 - ii. Summary of current stormwater retrofit control measures being implemented, and current estimate of annual program resources directed towards stormwater retrofits;
 - iii. Identification of developed areas or land uses impacting water quality that are high priority retrofit areas;
 - iv. Consideration of new stormwater control measures;

- v. Preferred retrofit structural control measures, including rationale;
 - vi. A retrofit control measure project or approach priority list, including rationale, identification and map of potential stormwater retrofit locations where appropriate, and an estimated timeline and cost for implementation of each project or approach.
- c. By November 1, 2013, each co-permittee must identify one stormwater quality improvement project, at a minimum, to be initiated, constructed or implemented during the permit term. The project must target the reduction of applicable TMDL pollutant parameters. The project must be associated with a Capital Improvement Project or other municipal retrofit project or strategy.
- 7. Implementation Schedule:** The following implementation schedule provides a summary of due dates for the new permit conditions identified in Schedule A.

PERMIT CONDITION	SUMMARY OF IMPLEMENTATION SCHEDULE ACTIVITIES	DUE DATE
Illicit Discharge Detection and Elimination – A.4.a.	1. Document enforcement response procedures	November 1, 2011
	2. Develop or identify pollutant parameter action levels	November 1, 2011
	3. Identify and map dry-weather screening priority locations	July 1, 2012
Industrial and Commercial Facilities – A.4.b	1. Implement industrial and commercial facility inspection and stormwater control program	January 1, 2013
Education and Outreach – A.4.d.	1. Conduct or participate in effectiveness evaluation	November 1, 2014
Post-Construction Site Runoff – A.4.f.	1. Implement updated post-construction site runoff program	January 1, 2014
Pollution Prevention for Municipal Operations – A.4.g.	1. Inventory and assess municipal operations	January 1, 2013
Structural Stormwater Controls Operation and Maintenance Activities – A.4.h.	1. Implement structural stormwater controls operation and maintenance program	January 1, 2013
Hydromodification Assessment – A.5.	1. Conduct hydromodification assessment and submit report	November 1, 2014
Stormwater Retrofit Strategy Development – A.6.	1. Develop stormwater retrofit strategy and submit stormwater retrofit plan	November 1, 2014
	2. Identify stormwater quality improvement project	November 1, 2013
	3. Construct or implement stormwater quality improvement project	Permit expiration date

- (a) BMP Implementation: Each Copermittee must implement or require implementation of management measures based on a review of pertinent factors, including:
- (i) Maintenance duties and procedures typically used by CIA/HOA maintenance associations within its jurisdiction;
 - (ii) Whether streets and storm drains are publicly or privately owned within the CIA/HOA or mobile home park;
 - (iii) Whether the CIA/HOA area or mobile home park has been identified as a high priority residential area based on an evaluation of the site potential to generate pollutants contributing to a 303(d) listed waterbody or an observed action level exceedance; and
 - (iv) Other activities conducted or authorized by the HOA that may pose a significant risk to inland receiving waters.
- (b) Legal Authority and Enforcement: By July 1, 2012, each Copermittee must review, and if necessary update, its Municipal Code to verify that they have the legal authority to implement and enforce its ordinances within CIA/HOA areas and mobile home parks.

d. RETROFITTING EXISTING DEVELOPMENT

Each Copermittee must develop and implement a retrofitting program that meets the requirements of this section. The goals of the existing development retrofitting program are to address the impacts of existing development through retrofit projects that reduce impacts from hydromodification, promote LID, support riparian and aquatic habitat restoration, reduce the discharges of storm water pollutants from the MS4 to the MEP, and prevent discharges from the MS4 from causing or contributing to a violation of water quality standards. Where feasible, at the discretion of the Copermittee, the existing development retrofitting program may be coordinated with flood control projects and other infrastructure improvement programs.

- (1) The Copermittee(s) must identify and inventory existing areas of development (i.e. municipal, industrial, commercial, residential) as candidates for retrofitting. Potential retrofitting candidates must include but are not limited to:
- (a) Areas of development that generate pollutants of concern to a TMDL or an ESA;
 - (b) Receiving waters that are channelized or otherwise hardened;
 - (c) Areas of development tributary to receiving waters that are channelized or otherwise hardened;

DIRECTIVES F: JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM

F.3 EXISTING DEVELOPMENT

F.3.c. RESIDENTIAL

F.3.d. RETROFITTING